

CLUSTAL O(1.0.3) multiple sequence alignment

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PFT1_A.thaliana      -----MSSEVKQLIVVAEGTAALGPYWQTIIVSDYLEKIIRSCFCGSELNGERN---
PFT1_A.lyrata        -----MSSEVKQLIVVAEGTAALGPYWQTIIVSDYLEKIIRSCFCGSELNGERN---
PFT1_P.trichocarpa   -----MADKQLIVAVEGTAAMGPFWSIIIVSDYLEKIIRCYCGNETSGQKP---
MED25_S.lycopersicum -----MVDKLIVAVEGTAVLGPYWKIIVSDYLDKIIRCFGVDSTSQKS---
MED25_H.sapiens       MVPGSEGPARGSVVADVVFVIEGTANLGPYFGLRKKHYLLPAIEYFNGGPPAETDFG-G
med25_X.laavis        ----MDAATPGNGIISDVVFVIEGTANLGPYFESLRKKHYLLPAIEYFNGGPPAETDFG-G
MED25_D.melanogaster -----MEVDQIPLADVVFVIEGSAINGAYINELKTNILPTLEHFTTGSIDEREYLIA
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PFT1_A.thaliana      PVSTVELSLVIFNSHGSYCACLQVRSWTRDVIDFLHWLSSIQFGGGGFNE-VATAEGLA
PFT1_A.lyrata        PVSTVELSLVIFNSHGSYCACLQVRSWTRDVIDFLHWLSSIQFGGGGFNE-VATAEGLA
PFT1_P.trichocarpa   PTSSAELSLVTFNSHGSYSACLQVRSWTRDVIDFLHWLSAIPFAGGGFND-AAIAEGLS
MED25_S.lycopersicum SAADVEVSMVMFNTHGPYSACLQVRSWTKDMDTFLQWLSAIPFSGGGFND-AAVAEGLA
MED25_H.sapiens       DYGGTQYSLVVFNTVDCAPESYVQCHAPTSSAYEFVTWLDGIKFMGGGGESCSLIAEGLS
med25_X.laavis        DYGGTQYSLVVFNTVDCAPESYVQCHAPTSSAYEFVQWLDSIKFMGGGGESCSLIAEGLS
MED25_D.melanogaster ERFATLYGIVVYRTAANLLEPVCSTYGPFLQPQKVMETIERLPLVGGGMESCAHMAEGFA
                        . .:* :. . . . :. :. : *** . . ***:
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PFT1_A.thaliana      EALMMFS--PPSGQAQPSNDLKRHCILITASNPHLPTPVYRPRQLQNVERNENGDAQAES
PFT1_A.lyrata        EALMMFS--PPSGQAQPSNDLKRHCILITASNPHTLPTPVFRPRLQSVERNENGDAQAES
PFT1_P.trichocarpa   EALMMFPITPNGNQTPNTDQGRNCILIAASNPHPLPTPVYRQIQNLQENIDAQNES
MED25_S.lycopersicum EALVMFSV--PNGNQTPQKMEGKKHCILISGSNPYPLPTPVYRQPMQKLEQENIEAQTDS
MED25_H.sapiens       TALQLFDDFKMKREQIGQT--HRVCLLICNSPPYLLPAVESTTY-----
med25_X.laavis        TALQLFDDFKMKREQIGQT--HKVCILICNSPPYLLPAVESTTY-----
MED25_D.melanogaster AAHGCFDDISERRQLLDQTSVQRHCILICNSPPYQMPTTESWKY-----
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PFT1_A.thaliana      RLSDAETVASYFAKCSVLSVVCQKQLPTIRALYNAGKPNQ--SADLSIDTAKNTFYLV
PFT1_A.lyrata        RLSDAETVASYFAKCSVLSVVCQKQLPKIRALYNAGKLNQ--SADLSIDTAKNTFYLV
PFT1_P.trichocarpa   RLSDAETVAKSFPQCSVLSVICPKQLPKLRILIYNAGKRNRS--AADPPVDNIKPNHFLV
MED25_S.lycopersicum RLADAETVAKTFPQCSISLSVICPKKLPKLRAIYDAGKHNPR--AADPPIDTAKNPFLV
MED25_H.sapiens       SGCTTENLVQQIGERGIHFSIVSPRKLPA LRLLFEKAAPPALLEPLQPPTDVSQDPRHMV
med25_X.laavis        SGYTTEENLVQKIGERGIHFSIISPRKLPA LRLLFEKAMPVGLIEPQ--PKDYSQDPRHMI
MED25_D.melanogaster PGKSCEQLAALFNERKINLSIIAPRKMPVLFKLFMKADGDQPI---TSKNYAKNIRHLV
                        * : . : : : *:.*:*: : : . : : : :
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PFT1_A.thaliana      LISENFVEACAALSHS-ATNLPQTQSPVKVDRATVAPSIPTGQPPAPVSSANGPIQNRQ
PFT1_A.lyrata        LISENFVEARAALSHS-ATNLPQTQSPVKVDRATVAPSLPVTGQPPAPVTSANGPIQNRQ
PFT1_P.trichocarpa   LISENFMEARAALSRPGATSLPSNQTPVKVDIASV---TSVTGPLPASIPSVNGSITNRP
MED25_S.lycopersicum LISENFIEARAASFSGLTNLASNHSVPKMDVSSV---LPVSGTQSISSAANVSISRP
MED25_H.sapiens       LVRGLVLPVGGGSA-PGPLQS-----KQPVPL-PPAAPS-----
med25_X.laavis        LVRGMVLPVGGATSVPGVMPP-----KQHISQ-PPLPVV-----
MED25_D.melanogaster LLKGYSCLKERASP--NSMAA-----QMAAPN-AAQATVQQQQQ-QQQNQAGQQQQGQ
*: : . : :
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PFT1_A.thaliana      PVSVGVPVTATVKVEPSTVTSMAPVPSFPHIPAVARPATQAIPSIQTSSASPVSQDMVSN
PFT1_A.lyrata        PVSVGVPVTATVKVEPSTVTSMAPVPSFPHIPSVARPATQIPSIQTSSASPVSQDMVTN
PFT1_P.trichocarpa   PISVGNLPTATVKVEPSTITSMANGSAFPHITSVPRPSSQGVPSMQTSSPSTTTQDMATN
MED25_S.lycopersicum PISAGNIPATVKIEPNTVTPTMT-GPGFSHIPSV-RPALQVPVSLQASSPLSVSQEMVSH
MED25_H.sapiens       G-----ATLSAAPQP-----
med25_X.laavis        P-----PQIASAPSHQ-----
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MED25_D.melanogaster	G-----MPMDTTPAQQ-----QQQQQQQQQQQQGNPQQQVMNMN :
PFT1_A.thaliana	AENAPDIKPVVVGMTPLRT---GPPGGANVNLNNLSQVRQVMSSAALAGAAS----S
PFT1_A.lyrata	AENAPDIKPVVVGMTPLRT---GPPGGANVNLNNLSQVRQVMSSAALAGAAS----S
PFT1_P.trichocarpa	GENAQDLKPNVSV-TTQSARS---APPAAANVNILNNLSQARQVMNSAALSGGTSIGLPS
MED25_S.lycopersicum	TENVQEMKPIVS-GMTQSLRP---VAAAAANVKILNGVAQAHQV-----LGGGTSIGLQS
MED25_H.sapiens	-----LPPVPPQYQV-P--GN-LSAAQVAAQ---NAV-EA--AKNQKAGL-GPRFSP-I
med25_X.laevis	-----LPPVQPPYMQVPQQST-LTPAHAAAH---SAV-EA--AKNQKNSP-SNRFLLPN
MED25_D.melanogaster	TMQQQQPGPNPPAGLLNPQQQQQLLQQQQQNQFVSNQMKNQ--NFQQNVGPGQNRWMPYN * . : :
PFT1_A.thaliana	VGQSAVAMHMSNMISTGMATSLPPSQTTFSTGQQGITSMAGSGALMGSAQT-----GQSP
PFT1_A.lyrata	AGQSAVAMHMSNMISTGMATSLPPSQTTFSTGQQGITSMAGSGALMGSAQT-----GQSP
PFT1_P.trichocarpa	INQTSVAMHMSMISSGMTSSVPAAQTVFSSGQPGVSSITGSGNLTGTTQI-----TPNS
MED25_S.lycopersicum	MGGTP---MLSSMISSGMASVPASQAVLSSGQSGVTTMTGAVPLAGSAQN-----TQNS
MED25_H.sapiens	-----TPLQQAAP-----GVG--PPFSQAPAP
med25_X.laevis	-----LNPMNPAP-----AVG--TPFNQPPAP
MED25_D.melanogaster	-----QPGQARPPFMQAGNVGGVGGGGMQGNPNS .
PFT1_A.thaliana	GPNN-AFSPQTT-SNVASNLGVSQ-----PMQGMNQG-----
PFT1_A.lyrata	GPNN-AFSPQTT-PNVASNLGVSQ-----PMQGMNQG-----
PFT1_P.trichocarpa	GLGS-FTSATSNMPGNSNLGGISQ-----PMGNLHAGVSIQS-
MED25_S.lycopersicum	APSS-FTSTAPSMGQTVP-----AMSQG-----
MED25_H.sapiens	QLP-----P---GPPGAP-----KPPPASQPSLVSTV-
med25_X.laevis	TLP-----P---NASVPKMVPSPSS-----LMTPASQSSLITTV-
MED25_D.melanogaster	ALISRINAPPP---NQTVTSLQQQQQQQAQQQQQQQAQQQQQRMQMLSQQMLNHQQ
PFT1_A.thaliana	-----SHSGAMMQGGISMNQNMMSGLGQGNVSSGTGGMPTPGVGQQ--AQ
PFT1_A.lyrata	-----SHSGAMMQGGISMNQIVSGLGQGNVSSGTGGMPTPGVGQQ--AQ
PFT1_P.trichocarpa	AMSGLGTNPNT-MSGSGAQMVQSGMGANPNTMSGLGASGVSSGNTMIPTPGMSQQ--VQ
MED25_S.lycopersicum	-----NIPGTQMMPSGTGMNQNMLTGLGATGLPSGTGTMPTPGMSQQ--GQ
MED25_H.sapiens	-APGSG LAP-TA-----QP-----GAPS----MAGTVAPGGVSGPS
med25_X.laevis	-TTGPGPAP-VLQQQQGAPQQP-----VPPS----MPITGAVGGVQAPQ
MED25_D.melanogaster	LQQQQQLAQQQQQQQGQQQQQ-----VNPNAGNNMMPASNAGNMSNPQ . * : . .
PFT1_A.thaliana	SGIQQLGGSNSSAPN-MQLSQPSSGAMQTSQSKYVKVWEGNLSGQRQGQPVLIT-----
PFT1_A.lyrata	SGIQQLGGSNSSAPN-MQLSQPSSGALQTSQSKYVKVWEGNLSGQRQGQPVLIT-----
PFT1_P.trichocarpa	SGMQPLGANNNSAAN-LPLSQQTAGGLQPAQSKYVKVWEGNLSGQRQGQPVFIT-----
MED25_S.lycopersicum	PGMQPVGVNSTSANM-PLSQQTS GALPSAQSKYVKVWEGNLSGQRQGQPVFIT-----
MED25_H.sapiens	PAQ--LGAPA-----LG--GQQSVSNKLLAWSGVLEWQEKPASVDANTKLT
med25_X.laevis	PSQPQIGTVQ-----LPCTQTPVNGNKLAWSGVLEWQEKPRSVSDNNAKLT
MED25_D.melanogaster	QQQQQVGQQSNPQQQGNPQQQQGNSQQEQASLREKIWTGVLEWSEKPKSDQQ----KIP :* . * * *. . : :
PFT1_A.thaliana	RLEG---Y--RSASASDSLAANWPPTMQIVRLISQDHMNN--KQYVGKADFLVFRAMSQ-
PFT1_A.lyrata	RLEG---Y--RSASASDSLAANWPPTMQIVRLISQDHMNN--KQYVGKADFLVFRAMSQ-
PFT1_P.trichocarpa	RLEG---Y--RSASASETLAANWPPTMQIVRLISQDHMNN--KQYVGKADFLVFRAMNQ-
MED25_S.lycopersicum	RLEG---Y--RSASASESLAANWPPTMQIVRLISQDHMNN--KQYVGKADFLVFRAMNQ-
MED25_H.sapiens	RSLPCQVYV---NHGENLKTEQWPQKLI-MQLIPQQLLTTLGPLF-RNSRMVQFHFTNKD
med25_X.laevis	RSLPCQVYI---NPGENLKTQWPQKLI-MQLIPQQLLTTLGPLF-RNSRMVQFHFTNKD

MED25_D.melanogaster	HTLQCTVCTNIKDGEPEIKAENWPPKLL-MQLMPKHLVGNIGGQFLKDSKMVFRP--TP : : : ** . : : * : . : . : : *
PFT1_A.thaliana	-----HGFLGQLQDKKLCAVIQLPSQTLLL SVSDKACRLIGMLFPGDMVVF KP
PFT1_A.lyrata	-----HGFLGQLQDKKLCAVIQLPSQTLLL SVSDKACRLIGMLFPGDMVVF KP
PFT1_P.trichocarpa	-----HGFLGQLQEKKLCAVIQLPSQTLLL SVSDKACRLIGMLFPGDMVVF KP
MED25_S.lycopersicum	-----HGFLSQLQEKKLCAVIQLPSQTLLL SVSDKACRLIGMLFPGDMVVF KP
MED25_H.sapiens	LES LKGLYRIMGNGFAGCVH-----FP-----HTAPCEVRVLM LLYSSKKKIFMG
med25_X.laevis	LES LKGLYRIMGSGFAGCVH-----FP-----HTTPCEVRVLM LLYSSKKKIFMG
MED25_D.melanogaster	GEALDSLAKMMTSGYAGCVH-----FSSIP---NSPACDLKVLILLYTPDRNAFLG * : . : : : : : : : : *
PFT1_A.thaliana	QIPNQQQQQQQQLHQQQQQQQQIQQQQQQQQHLQQQQMPQLQQQQQQH-----Q
PFT1_A.lyrata	QIPNPQQQQQQQLQQQHQQQQQIQQQQQQQQHLQQQQMPQLQQQQQQQ-----H
PFT1_P.trichocarpa	QISSQQQQMQQQHHQQMQQQQHPQLQ----QLQHQQQLPQLQQQQQLSQL-----QQ
MED25_S.lycopersicum	QIPSQQQQQQQQQQLQ---AQHPQLQQQQQQ--QQQ-----
MED25_H.sapiens	LIPYDQSGFVNGIRQVITNHKQVQQQKLEQQ----QRGMGGQ-----
med25_X.laevis	LIPNDQSGFVNGIRQVITNHKQVQM QKIDQQ----RN-MGAVQGVGAGSV PANSQGFLQK
MED25_D.melanogaster	FIPNNQAMFVERLRKVIQQKHGNMQQQQQQ---Q QMMQ-QQGKSPMELQQQQQQ--QQ * * : : : : * * :
PFT1_A.thaliana	-----QQQQQQHQLSQLQHHQ-----QQQQQQQQ-----
PFT1_A.lyrata	QQQQMPQLQQQQQHQLSQLQHHQ-----QQQQQQQQ-----
PFT1_P.trichocarpa	QQQQLSQLQQQQPQLSQLQQQ-----PQQLPQLQQQQQLSQLQ-Q
MED25_S.lycopersicum	-----HLTQLQQQP-----LQQLQQQQQQQPLMQLQQQ
MED25_H.sapiens	-----QAPPGLGPI----LEDQARPSQNLLQLRPP
med25_X.laevis	QP GTLPVGQ-----AVSQQMGGQ--QVAPGMP SISQVAMMDEQQR SQNLLHIRVQ
MED25_D.melanogaster	QQQQMQQDN-SQQQHYNQFQLNMQMGGGPGGGPGPGG-M-PMQNNQMNMNM---QQ : :
PFT1_A.thaliana	---QQQ-----HQLTQLQHHH-----QQQASPLNQMQQ-----T----
PFT1_A.lyrata	---QQQ-----HQLTQLQHHH-----QQ-----Q-----T----
PFT1_P.trichocarpa	QQLPQM-----QQLPQMQQQQQLQQQQMQQQQQMQQQQ-----LQQQQ-----
MED25_S.lycopersicum	QQIPLQ-----SQVPQMQQQI-----HMQQQ-----
MED25_H.sapiens	QPQPQT--VGASGATGQPQPQTAQPPP--GAPQG--PPGAASGPPPGPILRPQNP GAN
med25_X.laevis	QPQQLAS--QAP-----PQATQSSVQAP--G-----QPQNPQPGAMLRPQNP GAN
MED25_D.melanogaster	QRMP LGVGVGVGPGGVPNPNLQQQLQ--VAPNVAAMQQQQAQQQQQRMVRPMM SNN :
PFT1_A.thaliana	SPL-----NQMQ--QOTSPLNQMQQQQPQM--VM--GGQA-FAQAPGRSQQGG-
PFT1_A.lyrata	SPL-----NQMQ--QOTSPLNQMQQQQPQM--VM--GGQA-FAQAAGRSQQGG-
PFT1_P.trichocarpa	QQL---QQQQ--QQMQQQQQQLQQMQQ---QQM--VGTGMGT-YVQGPGRS QLVSQ
MED25_S.lycopersicum	-----QIPQMQQQQQIPQMQQQQQQPM--VGTGMNQT-YMQGPARS QLMSQ
MED25_H.sapiens	PQLRSLLLNPPPPQTGVPPPQASLHHLQPPGAPALLPPPHQLGLGQ-----P-QLGP
med25_X.laevis	PQLRNLLLSQQPPQSSVPQTQQLHHMQAAQSML---PHQAMGQQMQHQA PQLQLPGQ
MED25_D.melanogaster	PGLRQLLQHQTTPGNQFRPQ-----M-----
PFT1_A.thaliana	-----GGGQP-----NMPGA-----GFMG-----
PFT1_A.lyrata	-----GGGQP-----NMPGA-----GFMG-----
PFT1_P.trichocarpa	GQV---SSQGPA-----NMSGG-----GFMSQ-----
MED25_S.lycopersicum	SQG---SSQGLP-----ITPGG-----GFMN-----
MED25_H.sapiens	PLLHPPPAQSWPAQLPPRAPLPGQMLLSGGPRGPVPQPLQP----SVMEDDILMDLI
med25_X.laevis	SLMHQTPAQWGNQMQRAPIGTLMMSAGPRGPVPQSGLQQVQAQSVMEDDILMDLI

MED25_D.melanogaster

-----GGQNPNQMGAGGPMVGNRNFDDGNYEFM-----
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